# COMPUTER ENGINEERING

Courses required for the pre-major or major, inside or outside of the Departments of Computer Science or Electrical and Computer Engineering, cannot be taken for the passed/not passed grading option. They must be taken for letter grades.

## GENERAL EDUCATION

<table>
<thead>
<tr>
<th>Courses TAKEN TO SATISFY REQUIREMENTS</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRIT 2E, 50E..................................</td>
<td>8</td>
</tr>
<tr>
<td>Social Sciences, Civilization and Thought</td>
<td>23</td>
</tr>
<tr>
<td>The Arts and Literature..................</td>
<td></td>
</tr>
</tbody>
</table>

A total of 23 units is required in Social Sciences, Civilization and Thought, and the Arts and Literature. See catalog for American Institutions requirement.

## PREPARATION FOR THE MAJOR (Lower Division)

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1, 2, 3, 3L, 4, 4L</td>
<td>16</td>
</tr>
<tr>
<td>CHEM 1A, AL, 1B, BL</td>
<td>8</td>
</tr>
<tr>
<td>CM PSC 10</td>
<td>4</td>
</tr>
<tr>
<td>CM PSC 20</td>
<td>4</td>
</tr>
<tr>
<td>CM PSC 40</td>
<td>4</td>
</tr>
<tr>
<td>CM PSC 60</td>
<td>4</td>
</tr>
<tr>
<td>MATH 3A-B-C, 5A</td>
<td>16</td>
</tr>
<tr>
<td>ENGR 5A</td>
<td>1</td>
</tr>
<tr>
<td>ECE 2A-B-C</td>
<td>12</td>
</tr>
<tr>
<td>ECE 15A-B</td>
<td>6</td>
</tr>
</tbody>
</table>

## MAJOR (Upper Division)

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 130A</td>
<td>4</td>
</tr>
<tr>
<td>CMPSC 170</td>
<td>4</td>
</tr>
<tr>
<td>ECE 139 or PSTAT 120A</td>
<td>4</td>
</tr>
<tr>
<td>ECE 152A-B</td>
<td>10</td>
</tr>
<tr>
<td>ECE 154</td>
<td>4</td>
</tr>
<tr>
<td>ENGR 101</td>
<td>3</td>
</tr>
</tbody>
</table>

## FREE ELECTIVES

17

Total Units Required for Graduation 184

### COURSES TAKEN TO SATISFY REQUIREMENTS

**Social Sciences, Civilization and Thought** (Areas D & E)

(8 units minimum; at least 4 of these from E-1)

**The Arts and Literature** (Areas F & G)

(8 units minimum; at least 4 of these from G)

**Ethnicity**

**American History and Institutions**

(1 course may be counted as Gen. Ed. if selected from approved list)

<table>
<thead>
<tr>
<th>Departmental Electives*</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Free Electives</th>
</tr>
</thead>
</table>

* Prior approval of the student’s departmental electives must be obtained from the student’s faculty adviser.

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## COMPUTER ENGINEERING

### Freshman Year (48 units)

<table>
<thead>
<tr>
<th>FALL</th>
<th>WINTER</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1A</td>
<td>3</td>
<td>CHEM 1B</td>
</tr>
<tr>
<td>CHEM 1AL</td>
<td>1</td>
<td>CHEM 1BL</td>
</tr>
<tr>
<td>MATH 3A</td>
<td>4</td>
<td>MATH 3B</td>
</tr>
<tr>
<td>Gen. Ed. elective</td>
<td>4</td>
<td>PHYS 1</td>
</tr>
<tr>
<td>WRIT 1E or 2E</td>
<td>4</td>
<td>WRIT 2E or 50E</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

### Sophomore Year (47 units)

<table>
<thead>
<tr>
<th>FALL</th>
<th>WINTER</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPSC 20</td>
<td>4</td>
<td>CMPSC 40</td>
</tr>
<tr>
<td>ECE 2A</td>
<td>4</td>
<td>ECE 2B</td>
</tr>
<tr>
<td>ENGR 5A</td>
<td>1</td>
<td>ECE 15A</td>
</tr>
<tr>
<td>MATH 5A</td>
<td>4</td>
<td>PHYS 4</td>
</tr>
<tr>
<td>PHYS 3</td>
<td>3</td>
<td>PHYS 4L</td>
</tr>
<tr>
<td>PHYS 3L</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>17</td>
<td>15</td>
</tr>
</tbody>
</table>

### Junior Year (46 units)

<table>
<thead>
<tr>
<th>FALL</th>
<th>WINTER</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 152A</td>
<td>5</td>
<td>ECE 154</td>
</tr>
<tr>
<td>ECE 139 or PSTAT 120A</td>
<td>4</td>
<td>CMPSC 130A</td>
</tr>
<tr>
<td>Gen. Ed. elective or free electives</td>
<td>8</td>
<td>Gen. Ed. elective or free electives</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>17</td>
<td>16</td>
</tr>
</tbody>
</table>

### Senior Year (43 units)

<table>
<thead>
<tr>
<th>FALL</th>
<th>WINTER</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPEN Electives</td>
<td>12</td>
<td>CMPEN Electives</td>
</tr>
<tr>
<td>Free elective</td>
<td>4</td>
<td>ENGR 101</td>
</tr>
<tr>
<td>Free elective</td>
<td>4</td>
<td>Free elective</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>16</td>
<td>15</td>
</tr>
</tbody>
</table>